SONY

FM/AM **Compact Disc Compact Player**

3-862-895-24 (1)

Operating Instructions

About area code

The area code of the player you purchased is shown on upper left of the bar

code label on the package. For accessories supplied with your player, check the area code of your model and refer to "Supplied accessories" toward the end of this manual.



D-F411 D-F413 D-F415

Sony Corporation ©1998 Printed in Malaysia

Welcome!

Thank you for purchasing the Sony Compact Disc Compact Player. Before operating your player, please read this manual and retain it for future reference.

About this manual

The instructions in this manual are for the D-F411, D-F413 and D-F415. Before you start reading, check your model number The D-F415 is the model used for illustratio purposes

Owner's Record

The model and the serial numbers are located at the bottom. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this

Model No. Serial No.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION

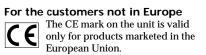
The use of optical instruments with this product will increase eye hazard.

For the customers in the USA This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following

- measures Reorient or relocate the receiving antenna Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver
- is connected. Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this

For the customers in Australia The supply cord of the AC power adaptor cannot be replaced; if the cord is damaged, the AC power adaptor should be discarded.

For the customers not in Poland The \bigcirc mark on the unit is valid only for products marketed in Poland.

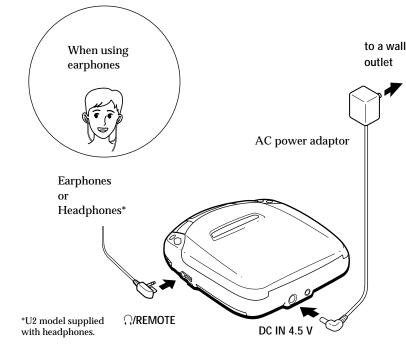


For the customers not in Russia This mark on the unit and package is $\left(\mathbf{P} \stackrel{\text{This mark on the set of the se$ Russia. АЯ46



If you want to play a CD right now, choose to use your player on house current. Other choices are the following three: rechargeable battery, dry batteries (see "Power Sources" on the reverse side) and car battery.

Connect

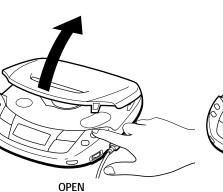


For models supplied with the AC plug adaptor If the AC power adaptor does not fit the wall outlet, use the AC plug adaptor

For models supplied with the remote control

- Connect the plug of the earphones/headphones to the remote control, not to the Ω /REMOTE jack of the player.
- Connect the earphones/headphones to the remote control firmly. A loose connection may cause noise during playback.

Place a CD



1 Press OPEN to open the lid.

[3]

3 Close the lid.

2 Fit the CD to the pivot.

Label side up



То	Press
Pause (main unit only)	►II
Resume play after pause (main unit only)	►II
Find the beginning of the current track (AMS*)	I≪ once**
Find the beginning of previous tracks (AMS)	I≪ repeatedly**
Find the beginning of the next track (AMS)	►► once**
Find the beginning of succeeding tracks (AMS)	► repeatedly**
Go forward quickly	Hold down ▶▶I**
Go backwards	Hold down

*AMS = Automatic Music Sensor **These operations are possible during both play and pause.

To remove the CD

auickly

Remove the CD while pressing the pivot.



Note on controlling the volume with the remote control (D-F415 only) Set the VOL (volume) control on the remot control to MAX. Then adjust the volume on the player to the level that you want to be the mum volume of the remote control.

Notes on display

• When you press ►II or ► (when RESUME is set to OFF) the total number of tracks in the CD and the total playing time appear for about 2 seconds.

• During play, the track number and the elapsed playing time of the current track

• During pause, the elapsed playing time

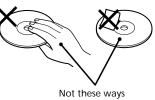
Between tracks, the time to the beginning of the next track will appear with the "-" indication

Notes on handling CDs

• To keep the CD clean, handle it by its edge. Do not touch the surface.

• Do not stick paper or tape onto the CD. • Do not expose the CD to direct sunlight or heat sources such as hot air ducts. Do not leave the CD in a car parked under direct



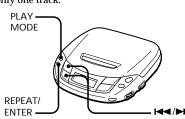


To stop play, press

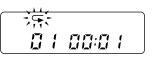
► Other Operations

Playing tracks repeatedly (Repeat Play)

You can play tracks repeatedly in normal, INTRO PGM, shuffle or RMS (Random Music Sensor) play modes. Repeat all the tracks or only one track.

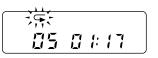


To repeat all the tracks Press REPEAT/ENTER during play. The " $rac{}$ " indication appears.

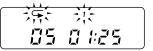


To cancel repeat play, press REPEAT/ENTER

To repeat a single track 1 Press REPEAT/ENTER while the track you want to repeat is playing. The " \subseteq " indication appears.



2 Press PLAY MODE repeatedly until "1" appears

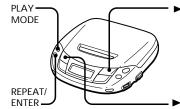


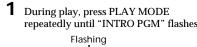
To repeat another track, press I or ►►

To cancel repeat play, press REPEAT/ENTER

Playing only the tracks you want (INTRO PGM Play)

You can choose and play your favorite tracks by scanning through the beginning of each track in a CD.







- **2** Press ►II to start scanning The player plays about the first 15 seconds of each track and "INTRO PGM" lashes faster
- **3** Press REPEAT/ENTER while the track you want is playing. To skip the track, press ►► or just wait for the next track

After you have gone through the CD, "INTRO PGM" stops flashing and the tracks you have chosen play automatically.

To finish programming before going through the whole CD, press ►II. The selected tracks will be played.

If you press \blacksquare , the program will be erased. To prevent accidental erasure, set the RESUME switch to ON.

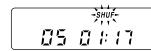
To cancel INTRO PGM play, press PLAY MODE repeatedly until the play mode indication disappears from the display.

Playing tracks in random order (Shuffle Play)

You can play the tracks in a CD in random



During play, press PLAY MODE repeatedly intil "SHUF" appears. The tracks play in random order

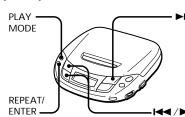


To cancel shuffle play, press PLAY MODE repeatedly until the play mode indication disappears from the display.

• During shuffle play, you cannot return to previous tracks by pressing I

Playing tracks in the order you want (RMS Play)

You can program up to 22 tracks to play in any order you choose



1 During play, press PLAY MODE repeatedly until "RMS*" flashes



*RMS = Random Music Senso

2 Press \bowtie or \bowtie to choose a track. The track number and the playing order appear.

- **3** Press REPEAT/ENTER to program the
- 4 Repeat steps 2 and 3 to program the maining tracks
- 5 Press ►II "RMS" stops flashing and the tracks you have chosen play in the order you specified.

If you press ■, the program will be erased. To prevent accidental erasure, set the RESUME switch to ON.

To cancel RMS play, press PLAY MODE until

To check the program

During programming: Press REPEAT/ENTER before step 5.

During RMS play: Press PLAY MODE repeatedly until "RMS" flashes, then press REPEAT/ENTER.

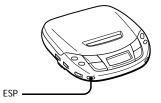
Each time you press REPEAT/ENTER, the track number and the playing order appear in the order you specified.

• If you program another track after the 22nd track, the first track programed is cleared and the new track is programed instead.

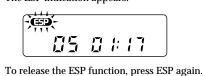
Using other functions

To minimize skipping (ESP²) The ESP (Electronic Shock Protection function minimize skipping by using a buffer memory that stores music data and plays it back in the event of a shock. The new ESP² (ESP Squared) system uses a new DSP (Digital Signal Processor) which can read and store music data more efficiently, providing a level of continuous skip protection not found in traditional buffer memory units. This decreases the frequency of sound skipping and the need to utilize the buffer memory. Use this function when listening in a car or while walking.*

* Although ESP² provides excellent protection against skipping, it will not prevent skipping while jogging or running



Press ESP. The ESP indication appears



- Playing may stop when the player gets a strong shock even with the ESP function
- · You may hear a noise or sound skip when – listening to a dirty or scratched CD,
- listening to an audio test CD or, the player receives continuous shock.
 Sound may drop for a while if you press ESP during play.

To enjoy more powerful bass sound (Sound function)

You can enjoy a powerful bass-boosted

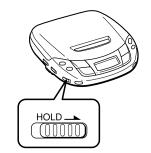


Press SOUND to select "BASS" or "GROOVE." GROOVE" is more effective

• If the sound is distorted when emphasizing bass, turn down the volur

To lock the buttons

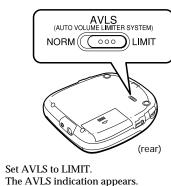
You can lock your player against any accidental operations You can still operate the player with the remote contro



Slide HOLD in the direction of the arrow When you press any button, "Hol d" appears in the display and you cannot operate the player

To unlock. slide HOLD back

To protect your hearing (AVLS) The AVLS (Automatic Volume Limiter System) function keeps down the maximum volume to protect your ears.



-AVLS-

Note

• If you use the SOUND function and the AVLS function at the same time, sound may be distorted. If this happens, turn down the

To resume playing from the point you stopped the CD (Resume Play) Normally, every time you stop and play playing starts from the beginning of the CD. The resume play function, however, lets you listen to from the point where you last turned off the player



Set RESUME to ON.

To cancel resume play, set RESUME to OFF.

• Even if RESUME is set to ON, playing starts from the beginning when you open the lid. • The resume point may be inaccurate by about

To turn off the beep

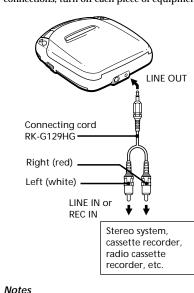
You can turn off the beep that sounds as you operate your player.

Disconnect the power source (AC power adaptor, rechargeable battery or alkaline batteries). While you press and hold down connect the power source again. To make the beep sound again, disconnect the power

source, and then connect it without pressing

Connecting to other stereo equipment

You can listen to the CD through other stereo equipment or record a CD on a cassette tape Refer to the instruction manual of the other equipment for details. Before making connections, turn off each piece of equipmen



- When you use a connecting cord, the SOUND function will be disabled. • Before you play the CD, turn down the volume
- of the connected equipment so as not to damage the connected speakers. • The beep sound is not output from the LINE
- OUT jack. • When you connect other equipment to the
- LINE OUT jack of this player, adjust the volume on the connected equipment. • When you record a CD on a cassette tape using a tape recorder that has the blank search
- function, release the ESP function. If the ESP function is on, the blank search function does not work

Continue to the reverse side ÷

Playing a CD in a car

You can use your player in a car as illustrated



To connect your player to a car cassette deck. you need the following accessories: • Car connecting pack

- Car battery cord
- Mount kit CPM-300PC (Mount plate + Car connecting pack + Car battery cord) Car battery cord with car connecting pack DCC-E26CP
- Refer to the instruction manual of each accessory for details.

When you use the CPM-300PC mount kit/CPM-300P mount plate

Attach the car mount adaptor supplied to the CPM-300PC/300P before installing the

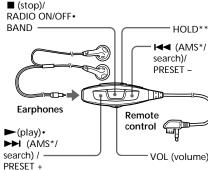
Notes

- Do not put the player on the dashboard. • Do not leave the player in a car parked under
- Use a Sony car connecting pack for reducing
- Use only the car battery cord listed in the optional accessories. If you use any other car battery cord, smoke, fire or malfunction may

Switched ignition function (when using the car battery cord) With this feature, your player stops automatically when you turn off the engine of the car. (This function is not possible with some cars depending on the model.)

Using the remote control (D-F415 only)

You can use the remote control as the wired remote control.



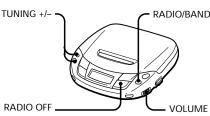
* Automatic Music Sensor

** When you are not using the remote control, slide HOLD in the direction of the arrow to prevent any accidental operation To unlock, slide HOLD back.

• Use only the supplied remote control. You cannot operate this player with the remote control supplied with other models.

► Radio operations

Listening to the radio



- Press RADIO/BAND (RADIO ON/OFF• BAND on the remote control) to turn on the radio.
- 2 Press RADIO/BAND (RADIO ON/OFF• BAND on the remote control) repeatedly until the band you want appears in the Each time you press the button, the display changes: FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow $FM4 \rightarrow AM.$
- **3** Press TUNING + or to tune in the station you want and adjust the volume

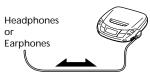
(FM 🗐 38.00^{MHz}

To turn off the radio Press RADIO OFF. (On the remote, hold down RADIO ON/OFF • BAND.)

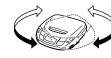
To tune in the station quickly Hold down TUNING + or - in step 3 until the frequency digits begin to change in the display. The player automatically scans the radio frequencies and stops when it finds a clear station.

To improve broadcast reception

For FM, extend the headphones/earphones



For AM, reorient the player itself.



Note • Keep the headphones/earphones connected to the Ω /REMOTE jack of the player even when

listening to the FM program through the speakers connected to the LINE OUT jack of the player. The headphones/earp works as the FM antenna

If it is hard to hear the FM broadcast For the models equipped with the DX/

LOCAL switch: Set the DX/LOCAL switch to LOCAL Under the normal conditions, set to DX.



For the models equipped with the

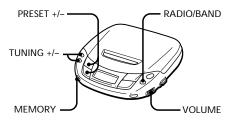
STEREO/MONO switch: Set the STEREO/MONO switch to MONO. The noise will be reduced but the radio will play in monaural



STEREO/MONO -

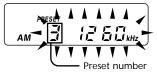
Presetting radio stations

You can store radio stations into the player's memory. You can preset up to 30 stations, 6 for each band (FM1, FM2, FM3, FM4 and AM) in any order. Once you've preset the stations, use PRESET + or - to tune in your favorite



- Press RADIO/BAND (RADIO ON) OFF • BAND on the remote control) to select the band.
- **2** Press PRESET + or until the preset number you want for the station appears in the display.
- **3** Press MEMORY.





- **4** Tune in the station you want.
- **5** Press MEMORY again. The new station replaces the old one.

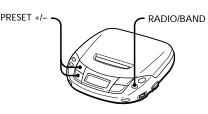


- To cancel all preset stations 1 Disconnect the power source (AC power adaptor, rechargeable battery or alkaline
- 2 While you press and hold down RADIO/
- BAND, connect the AC power adaptor

The display flashes until all preset stations are cleared, then stops and disappears.

> PRESET

Playing preset radio stations



- 1 Press RADIO/BAND to select the band.
- 2 Press PRESET + or to tune in the stored station

► Power Sources

Using rechargeable battery

Charge the rechargeable battery before using it for the first time. Use only BP-DM10 or BP-DM20 rechargeable battery for this player. Do not use any other rechargeable batteries. You can use BP-DM10 and BP-DM20 in the same way, but their charging time and battery life are different. Check the model number of vour rechargeable battery before using it.

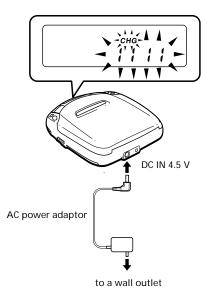
1 Open the lid of the battery compartment



2 Insert the rechargeable battery so that the word "SONY" is facing the same direction as illustrated inside the lid, and close the lid.



3 Connect the AC power adaptor. The indication "CHG" lights up and the 'number 1" shifts position in succession until the battery is fully charged. Charging time is about 2 hours for BP-DM10 and 3.5 hours for BP-DM20.



4 When fully charged, "CHG" disappears. Disconnect the AC power adaptor

When to charge the battery When the battery becomes weak, \triangleleft indication flashes in the display. If the "Lo $b\partial tt$ " appears in the display, charge the rechargeable battery, because the battery is used up. To keep the battery life long, recharge the battery when the battery is used up (discharged).

- Charging time varies depending on how the rechargeable battery is used. • If the battery is new or has not been used for a
- long time, it may not be charged completely until you charge and discharge it several times If the battery life becomes shorter by about
- half, replace it with Sony BP-DM10 or BP-DM20 rechargeable battery. Do not use any other rechargeable battery (R6 type rechargeable battery, etc.).

Using dry batteries

1 Open the lid of the battery compartment

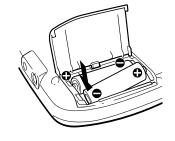


2 Insert two LR6 (size AA) alkaline batteries by matching the \oplus and \ominus to the diagram inside the battery compartment and close the lid.



· Do not use manganese batteries for this player

To take out the drv batteries Press the \bigcirc side of the battery as shown



When to replace the dry batteries When the battery becomes weak, \Box indication flashes in the display. If the "Lo bdtt" appears in the display, replace all the batteries with new ones, because the batteries are used up.

Notes

• Do not charge the dry batteries.

- Do not mix new batteries with old ones.
 Do not use different types of batteries together
- When the batteries are not to be used for a long time, remove them.
- If the battery leakage occurs, wipe off any deposit in the battery compartment, and install new batteries

Battery life (approx. hours)(EIAJ*)

When using	ESP function off on		Radio on
BP-DM10 (charged for about 2 hours**)	3.5	3	6
Two Sony alkaline batteries LR6SG	14	12	23
BP-DM20 (charged for about 3.5 hours**)	7	6	12

*Measured value by the standard of EIAJ (Electronic Industries Association of Japan (When the unit is used on a flat and stable place.) **Charging time varies depending on how the rechargeable battery is used.

How to attach the battery

compartment lid If the battery compartment lid is detached by an accidental drop, excessive force, etc., attach it as illustrated in the numbered order



► Additional Information

Precautions

On safety

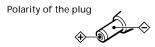
- Should any solid objects or liquid fall into the unit, unplug it and have it checked by qualified personnel before operating it any furthe
- Do not put any foreign objects in the DC IN 4.5 V (external power input) jack.

On power sources

- When you are not using the player for a long time, disconnect all power sources from the
- The nameplate indicating operating voltage, power consumption, etc. is located at the bottom of the AC power adaptor (for EA3 only)

On the AC power adaptor

• Use only the supplied AC power adaptor. If your player is not supplied with it, use AC-E45HG AC power adaptor. Do not use any other AC power adaptor.



• To unplug the AC power adaptor from the wall outlet, grasp the adaptor itself, do not pull its

On dry and rechargeable batteries

Do not throw the batteries into fire.Do not carry the rechargeable battery with coins or other metallic objects. It can generate heat if the positive and negative terminals of the battery are accidentally contacted by a metallic object.

On the player

- Keep the lens of the player clean and do not touch it. If you do so, the lens may be damaged and the player will not operate properl • Do not put any heavy object on top of the
- Do not part any neavy object on top of the player. The unit and the CD may be damagedDo not leave the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain,
- mechanical shock, unleveled surface, or in a car with its windows closed. • If the player causes interference to radio or
- television reception, turn off the player or move it away from the radio or television • Do not wrap the player in a cloth or blanket
- during use as it may cause malfunction or serious accidents.

On headphones/earphones

Road safety Do not use headphones/earphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headsets at high volume while walking, especially at pedestrian crossings You should exercise extreme caution or discontinue use in potentially hazardous situations

Preventing hearing damage

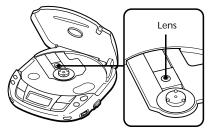
Avoid using headphones/earphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce volume

Caring for others

Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

Maintenance

To clean the lens Clean the lens with a lens cleaning kit KK-DM1



To clean the casing Use a soft cloth slightly moistened in water or a mild detergent solution. Do not use alcohol, benzine or thinner.

When you press ►II, "00" appears in the display for a moment, and disappears. The CD does not play.

- → Rechargeable battery or dry batteries ar used up. Charge the rechargeable battery or replace dry batteries with new ones.
- No sound, or noise is heard,

Troubleshooting

is placed in the unit.

→ The CD is dirty or defective

the moisture evaporates.

compartment firmly.

correctly.

outlet securely

Should any problem persist after you have made

these checks, consult your nearest Sony dealer

The CD does not play or "no dl 50"

appears in the display though a CD

→ Insert the CD with the label side up.

→ Moisture condensation has occurred

→ The lens is dirty.
→ Close the lid of the unit and the battery

→ Connect the AC power adaptor to a wall

→ Make sure the batteries are inserted

Leave the unit aside for several hours until

- → Connect the plugs firmly. ➔ Plugs are dirty. Clean the plugs with a dry soft cloth periodically.
- "HI dc In" appears in the display. → Use only the supplied AC power adapto or recommended AC power adaptor AC-E45HG (not supplied).
- "Hol d" appears in the display when you press a button. → The buttons are locked. Slide HOLD back.

"Lo bdtt" appears in the display when you press a button.

- → The rechargeable battery is used up completely. Connect the AC power
- adaptor and charge the battery → The dry batteries are used up. Replace
- them with new ones

The battery life is short.

- → Manganese batteries are used. Use alkaline
- → Replace the batteries with new ones.

The volume is limited to a certain level even if you attempt to turn it

→ AVLS selector is set to LIMIT. Set it to NORM.

When listening to the radio, the

- audio is weak or has poor quality.
- → Replace the batteries with new ones → Move the unit away from the TV.

Specifications

CD player

- Compact disc digital audio system
- Laser diode properties Material: GaAlAs
- Wavelength: $\lambda = 780$ nm
- Emission duration: Continuous Laser output: Less than 44.6 µW (This output
- is the value measured at a distance of 200 mm from the objective lens surface on the optical
- pick-up block with 7 mm aperture.)
- Error correction Sony Super Strategy Cross Interleave Reed Solomon Code
- D-A conversion
- 1-bit quartz time-axis control Frequency response 20 - 20,000 Hz ⁺¹/₋₂ dB (measured by EIAJ CP-
- Output (at 4.5 V input level) Headphones (stereo minijack)
- Approx. 15 mW + approx. 15 mW at 16 ohms Line output (stereo minijack)
- Output level 0.7 V rms at 47 kilohms kilohme

Radio section

Frequency range FM: 87.5 - 108.0 MHz AM: 531 - 1 602 kHz Antenna

FM: Headphones/earphones cord antenna AM: Built-in ferrite bar antenna

General

Power requirements For the area code of the model you purchased. check the upper left side of the bar code on the package.
Sony BP-DM10 Rechargeable battery 2.4 V DC, Ni-Cd, 650 mAh Sony BP-DM20 Rechargeable battery: 2.4 V DC, Ni-MH, 1,200 mAh Two LR6 (size AA) batteries: 3 V DC
AC power adaptor (DC IN 4.5 V jack): U2/CA2/E92 model: 120 V, 60 Hz CED/CEX/EE1/E13/CET model:

- 220 230 V, 50/60 Hz CEK model: 230 240 V, 50 Hz
- EA3 model: 110 240 V, 50 Hz AU2 model: 240 V, 50 Hz
- JE.W/E33 model: 100 240 V, 50/60 Hz
- HK2 model: 220 V. 50/60 Hz
- CN2/AR1 model: 220 V, 50 Hz • Sony CPM-300P mount plate for use on car
- battery: 4.5 V DC Dimensions (w/h/d) (without projecting parts
- and controls)
- Approx. 133 × 33 × 152 mm
- $(5 \frac{1}{4} \times 1 \frac{5}{16} \times 6 \text{ in.})$ Mass (without rechargeable battery)
- Approx. 260 g (9.2 oz)
- Operating temperature 5°C - 35°C (41°F - 95°F)

Supplied accessories

For the area code of the model you purchased check the upper left side of the bar code on the package. D-F411

- AC power adaptor (1) Headphones (1)*1
 - Earphones (1)*2
 - Connecting cord (Phono plug $\times 2 \leftrightarrow$ stereo
 - miniplug) (1)*³ AC plug adaptor (1)*⁴
 - ¹ Supplied with U2 model
 ² Not supplied with U2 model

 - *3 Not supplied with CED, CEX, CET and CEK models
- *4 Supplied with E33, E13 and EA3 models D-F413
- AC power adaptor (1) Earphones (1)
- Rechargeable battery (1) D-F415

AC power adaptor (1)

without notice.

For US customers

Headphones with remote control (1)*1

Design and specifications are subject to change

AC power adaptor supplied is not intended to be serviced. Should the AC power adaptor cease to function in its intended manner, during the warranty period, the adaptor should be returned to your nearest Sony Service Center or Sony Authorized Repair Center for replacement, after warranty period, it should be discarded

- Earphones with remote control (1)*2 Connecting cord (Phono plug $\times 2 \leftrightarrow$ stereo
- miniplug) (1)^{*1} Rechargeable battery (1)
- AC plug adaptor (1)*³ *¹ Supplied with U2 model *2 Not supplied with U2 model *³ Supplied with E13 model

Rechargeable battery BP-DM10, BP-DM20 Connecting cord RK-G129HG, RK-G136HG AC power adaptor AC-E45HG Stereo headphones MDR-A44L, MDR-301LP, MDR-E848LP, MDR-35*²

Optional accessories

DCC-E26ČP

SRS-A71. SRS-T1

¹ Sold in Japan only

Mount plate CPM-300P Mount kit CPM-450PC* Mount kit CPM-300PC

Car connecting pack CPA-9

Car battery cord DCC-E245

Car battery cord with car connecting pack

Active speaker system SRS-A15, SRS-A35,

² For the customers supplied with the

the supplied remote control, use only headphones with stereo mini plugs. You

cannot use headphones with micro plugs

headphones with remote control:

Your dealer may not handle some of the above

listed accessories. Please ask the dealer for

detailed information about the accessories in

your country.

When connecting optional headphones to